

March 19, 2024

**FINANCIAL ASSISTANCE CENTER
FINDING OF NO SIGNIFICANT IMPACT/ENVIRONMENTAL ASSESSMENT**

TO: ALL INTERESTED GOVERNMENT AGENCIES AND PUBLIC GROUPS

In accordance with procedures for environmental review found at 10 CSR 20-4.050, the Department has performed our review on the proposed action below:

PROJECT INFORMATION:

Project Identification: Huntsville Wastewater System Improvements Phase 1

Applicant: City of Huntsville

Project Nos.: C295848-01 and -02

City: Huntsville

County: Randolph

State: Missouri

Total Project Amount: \$6,944,775

Total Clean Water State Revolving Fund Eligible Costs: \$6,944,775

- Potential Loan: \$3,944,775
- Potential Grant: \$3,000,000

COMMUNITY DESCRIPTION:

Location: The City of Huntsville is in northern Missouri with Route JJ and State Hwy C running through the city. Huntsville is located 4 miles west of Moberly and 7 miles east of Clifton Hill. The Northwest Wastewater Treatment Facility (WWTF) is located on the west side of town at the end of Willow Street and the Northeast WWTF is located on County Road 1225 north of town.

Population, Present and Projected, and Design Year: The population of Huntsville identified in the 2010 U.S. Census was 1,564. The Huntsville Northwest WWTF and Huntsville Northeast WWTF operating permits are based on design population equivalents of 1,644 and 266, respectively. The projected population for the City of Huntsville in 2045 is 1,644 people.



Current Methods of Waste Treatment:

The Northwest WWTF is a three-cell lagoon and is permitted as an aerated lagoon under Missouri State Operating Permit No. MO-0040819. The plant is currently designed to treat a flow of 132,000 gallons per day (GPD) for a population equivalent of 1,644. Biochemical Oxygen Demand (BOD) influent load estimates are approximately 178 lb/day at 130 mg/L and Total Suspended Solids (TSS) influent load are approximately 194 lb/day at 142 mg/L. The lagoon discharges into an unnamed tributary to East Fork Chariton River. Untreated wastewater flows into the eastern end of the primary cell, where two surface aerators assist in biological treatment. Although there is an influent weir box, in which the flow meter was placed before wastewater flowed into the lagoon, the weir is no longer in place. There is no screen before the lagoon. From the top of the berms, the primary cell is 5 feet deep, the second cell is 6 feet deep, and the third cell is 7 feet deep.

The Northeast WWTF is a three-cell lagoon and is permitted as a facultative lagoon under MO-0040827. The plant is currently designed to treat a flow of 26,600 GPD for a population equivalent of 266. BOD estimates are approximately 24 lb/day at 130 mg/L and TSS are approximately 24 lb/day at 117 mg/L. It is different from the Northwest WWTF in that the Northwest WWTF has surface aerators to assist in treatment. All the wastewater treatment at the Northeast WWTF is accomplished solely through biological and meteorological means (bacteria, algae, sunlight, wind, waves, etc.). The Northeast WWTF discharges into an unnamed tributary to Sugar Creek, which itself flows into East Fork Little Chariton River. Untreated wastewater flows into the southern end of the primary cell through an influent weir box like the Northwest WWTF, in which the flow meter was placed before wastewater flowed into the lagoon. The weir at the Northeast WWTF is also no longer in place. There is no screen before the lagoon. From the top of the berms, the primary cell is 7 feet deep, the second cell is 8 feet deep, and the third cell is 9 feet deep.

PROJECT DESCRIPTION:

Purpose and Need: The City of Huntsville owns and operates two wastewater treatment lagoons: the Northeast WWTF and the larger Northwest WWTF, each with their own tributary sewer systems. Both treatment lagoons have been unable to meet their current ammonia and *E. coli* bacteria limits, which led to enforcement action against the city by the department. In addition to treatment concerns, the city has experienced increasing inflow and infiltration (I&I) of stormwater and groundwater into the sanitary sewer collection systems. The extra, non-wastewater, flow to the lagoons makes treatment more difficult. Furthermore, the city is required to implement a program to identify and reduce I&I into the collection systems.

The goals of this project are:

- Improve the sanitary sewer collection system to assist in attaining compliance with the current permit and enforcement requirements;
- Ensure the sustainability of the sanitary sewer collection; and
- Continue protection of public health and the environment.

Improvements that minimize I&I will also be beneficial in properly sizing treatment system improvements in Phase II of the project.

Description of Project: The city is proceeding with wastewater improvements in two phases. Phase I will correct some of the I&I issues in the sewer system. Phase II will focus on improvements to wastewater treatment and will be completed after updated flow data is available, following Phase I. The project associated with this environmental determination is only the Phase I portion of the work.

The Phase I improvements are subdivided into Phase 1A and Phase 1B and include the primary components listed below:

- Phase IA
 - Rehabilitating over 25,000 linear feet (lf) of sanitary sewer by lining with cured-in-place pipe (CIPP): Point repairs, service tap replacements, and grouting will also be included in the sewer rehabilitation.
 - Rehabilitating existing manholes with repairs such as raising to grade, repairing rings and frames, lining and grouting. Nineteen manholes will be replaced with new 4-foot diameter manholes.
- Phase IB
 - Replacement of trunk sewers, including realigning two trunk sewer sections, one going to the Northeast WWTF and one going to the Northwest WWTF. This will include approximately 11,505 lf of gravity sewer pipes and 29 new manholes.
 - Renovating three of the city's lift stations (Hance Street, Wolverton Street and Lida Street) with new pumps, controls, and accessories, as well as adding a flow meter at each lift station.
 - Constructing a new lift station near the influent of the Northwest WWTF. This new lift station will also include a mechanical screen system for preliminary treatment. As part of Phase I, the water from this lift station will be pumped to the Northwest WWTF and will include approximately 180 lf of 6-inch diameter polyvinyl chloride (PVC) forcemain. The lift station will be designed to allow flexibility in pumping to the Northeast WWTF, depending on the treatment location selected for Phase 2 improvements.

Design Factors:

Approximate quantities and sizes of collection system improvements include:

- Install 25,430 linear feet (lf) of 8-inch CIPP.
- Manhole rehabilitation includes construction of 16 new 4-foot diameter manholes and three new 4-foot diameter drop manholes; 39 vertical feet of manhole lining; and other repairs for designated manholes.
- Trunk sewer replacement with the following quantities of new mains:
 - 5,455 lf of 8-inch diameter gravity sewer main
 - 1,050 lf of 10-inch diameter gravity sewer main
 - 2,000 lf of 12-inch diameter gravity sewer main
- As part of trunk sewer replacements, construct 28 new 4-foot diameter manholes and 1 new 4-foot diameter drop manhole.
- Install a gravity sewer flow meter at each of the two WWTFs.
- Renovate three existing lift stations with new pumps, controls, valving, flow meters, and meter vaults.

- Construct the new Northwest Lift Station with mechanical screen and associated structure, wet well, pumps, valves, and meter.
- Construct 180 lf of 6-inch diameter PVC forcemain.

ALTERNATIVES CONSIDERED:

The alternatives considered for the collection system were presented in the facility plan for Wastewater System Improvements signed and sealed May 7, 2021, and are summarized below.

- Manhole Rehabilitation & Repair; Trunk Sewer Replacement with New Lift Station (Selected) – This alternative includes rehabilitation of designated manholes, renovation of five existing lift stations, construction of a new lift station by the Northwest WWTF and force main, and replacement of approximately 10,090 lf of trunk sewers. The capital cost is estimated to be \$3,738,000 with an approximate present worth of \$3,779,000.
- Manhole Rehabilitation & Repair; Trunk Sewer Replacement (Original recommendation but revised in Addendum 1) – This alternative includes manhole rehabilitation and replacement, renovation of five existing lift stations, and replacement of approximately 11,150 lf of trunk sewers. The estimated capital cost and present worth are both \$3,618,000, due to no additional operation and maintenance costs.
- System-wide Sewer Replacement (Not Selected) – This alternative involves manhole rehabilitation and replacement, complete replacement of approximately 80,750 lf of sewer mains, and rehabilitation of five existing lift stations. The work would necessitate new service lateral connections but excludes replacing the service laterals themselves. A full Sanitary Sewer Evaluation Survey (SSES) would not be completed with this alternative. The capital cost is estimated to be \$20,224,000 with an approximate present worth of \$20,265,000.
- System-wide Sewer Rehabilitation with Sewer Lining (Not Selected) – This alternative involves manhole rehabilitation and replacement, the replacement of approximately 10,090 lf of trunk sewers, CIPP lining of approximately 78,000 lf of 8-inch diameter gravity sewer pipe, and rehabilitation of five existing lift stations. The work includes rehabilitating service connections but excludes rehabilitation of the service laterals themselves. The capital cost is estimated to be \$10,696,000 with an approximate present worth of \$10,737,000.
- “No action” Alternative (Not selected) – The project was initiated because of compliance issues with the city’s operating permits, as indicated by the department’s enforcement action. So, doing nothing will not address these compliance issues. Rehabilitating and replacing sewers and manholes, renovating the lift stations, and constructing a new lift station will assist the city in achieving the goal of permit compliance. Taking no action is not a viable option for the city. There is no capital cost for this alternative.

In the original report, the System-wide alternatives were determined to not be feasible due to the costs. Addendum 1 to the Facility Plan, dated July 28, 2022, presented the results of an expanded SSES, which included smoke testing, closed circuit television (CCTV) inspections, and hydraulic modeling. The scope of the Phase I improvements were refined and subdivided into Phase IA and Phase IB and cost estimates were updated. It was recommended that the new Northwest WWTF lift station be included in the scope, offering some technical advantages such as adding screening, ensuring wastewater is flowing adequately to the Northwest WWTF, and providing flexibility in directing flow to the selected treatment location for Phase 2. Improvements to the two smaller existing lift stations were removed from the scope. Addendum 2 to the Facility Plan dated February 24, 2023, shifted some components from Phase IA to Phase IB, to better align with funding requirements, with the project cost estimate for Phase IA being \$3,053,475 and for Phase IB being \$3,891,300.

REASONS FOR SELECTION OF PROPOSED ALTERNATIVE:

The selection of the proposed alternative considered numerous criteria, including technical, financial, environmental, and social factors. The selected project scope was determined to be the most cost effective, practical, and feasible.

ENVIRONMENTAL IMPACT SUMMARY:

1. Primary:

- a. Construction: Temporary surface disruption, blowing dust, and noise from vehicles and equipment will occur during construction, but the City of Huntsville expects these impacts to be minor and temporary in nature.
- b. Environmental: This project will reduce inflow and infiltration in the collection system, improve flow of wastewater to the treatment facility, and prevent sanitary sewer overflows.
- c. Financial: The current monthly rate for a residential user is a minimum cost of \$29.00 and \$8.00 per 1,000 gallons used. For residential usage of 5,000 gallons, the monthly total would be \$69.00. The current average bill in Huntsville is \$51.62.

2. Secondary:

- a. Population Impacts: The City of Huntsville anticipates no significant change in population trends resulting from this project. No significant relocation of people or structures are expected to result from this project. This project will not serve any new areas.
- b. Land Use and Trends: The City of Huntsville anticipates no significant change in land use trends resulting from this project. The City of Huntsville expects no development of sensitive areas.
- c. Environmental: The City of Huntsville does not expect secondary environmental impacts caused by this project.

3. Mitigation Measures Necessary to Eliminate Adverse Environmental Effects: Best Management Practices and good engineering practices should minimize noise, blowing dust, and erosion normally associated with construction. The City of Huntsville will promptly restore disturbed areas.

As indicated in correspondence from the U.S. Army Corps of Engineers, should the proposed improvements require the discharge of dredged or fill material in any waters of the United States, including wetlands, a Section 404 Department of the Army (DA) permit may be required. However, if the proposed improvements do not require the discharge of dredged or fill material in any waters of the United States, including wetlands, a DA permit will not be required. Federal regulations require that a DA permit be issued by the Corps of Engineers prior to the initiation of any construction on the portion of a proposed activity which is within the Corps' regulatory jurisdiction.

4. Irreversible and Irretrievable Commitment of Resources: Fuel and construction materials will be irretrievably committed to this project. Future funds will be committed to the operation and maintenance of the system.

PUBLIC PARTICIPATION:

1. Public Involvement: The City of Huntsville held a public meeting on March 23, 2023, at the Huntsville City Council Chambers at 105 South Main Street in the City of Huntsville, Missouri.
2. Public Opposition or Opinions: The public expressed no adverse opinions on the project.

COORDINATION AND DOCUMENTATION WITH OTHER AGENCIES AND SPECIAL INTEREST GROUPS:

1. Facility Plan: Original dated May 7, 2021; Addendum 1 dated July 28, 2022; and Addendum 2 dated February 24, 2023
Prepared By: Philip Wilson, P.E., McClure Engineering

Environmental Information Document: Submitted May 22, 2023
Prepared By: McClure Engineering

2. Federal:
 - a. U.S. Fish and Wildlife Service
 - b. U.S. Army Corps of Engineers
3. State:
 - a. Missouri DNR – State Historic Preservation Office
 - b. Missouri DNR – Missouri Geological Survey
 - c. Missouri DNR – Division of State Parks
 - d. Missouri Department of Conservation
 - e. Missouri Office of Administration – Federal Assistance Clearinghouse

4. Consulting Engineer: McClure Engineering
107 Butler Street
Macon, MO 63552
5. In accordance with the National Historic Preservation Act Section 106, notice was given to all tribes that may attach a religious or cultural significance to historic properties in the region that may be affected by this undertaking.

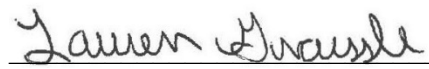
Positive Environmental Effects to be Realized from the Proposed Project: The city has experienced increasing inflow and infiltration (I&I) of stormwater and groundwater into the sanitary sewer collection systems. The extra non-wastewater flow to the lagoons makes treatment more difficult. This project will reduce inflow and infiltration in the collection system, improve flow of wastewater to the treatment facilities, and prevent sanitary sewer overflows.

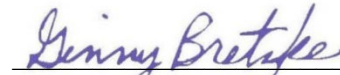
Reasons for Concluding There Will Be No Significant Impacts: The proposed project will have a positive impact on water quality and will not result in any significant adverse impacts on rare or endangered species, floodplains, wetlands, recreational areas, cultural/archaeological sites, or air quality. Population densities and land use trends will not be significantly affected. Appropriate mitigation measures will be implemented for minor impacts, which are expected to be temporary in nature.

This action is taken on the basis of a careful review of the facility plan and supporting documentation on file in the office of the Missouri Department of Natural Resources' Financial Assistance Center at 1101 Riverside Drive, Jefferson City, MO 65101. These are available for public review upon request Monday-Friday, 8:00 a.m. to 5:00 p.m. This agency will not take any administrative action on this project for at least 30 calendar days from the date of this document. Persons wishing to comment on the above environmental decision may submit comments to Ginny Bretzke, P.E., of the Missouri Department of Natural Resources, Financial Assistance Center, P.O. Box 176, Jefferson City, MO 65102-0176, during this period. E-mail comments will be accepted at the following address: DNR.SRFPublicNotice@dnr.mo.gov. Please include the project name and number in all comment letters. Thank you.

Sincerely,

FINANCIAL ASSISTANCE CENTER


Lauren Graessle, P.E.
Acting Director


Ginny Bretzke, P.E.
Project Review Engineer

LG:agc

March 19, 2024
Date

DISTRIBUTION

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P.O. Box 180
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Conservation Federation of Missouri
728 West Main Street
Jefferson City, MO 65101

U.S. Environmental Protection Agency
c/o Carter Tharp – WWPD/SRFB
tharp.carter@epa.gov

Missouri Department of Natural Resources
Missouri Geological Survey
Environmental Geology Section
P.O. Box 250
Rolla, MO 65402-0250

Missouri Department of Natural Resources
Division of State Parks
State Historic Preservation Office
P.O. Box 176
Jefferson City, MO 65102-0176

U.S. Fish and Wildlife Service
Ecological Services
101 Park DeVille Drive, Suite A
Columbia, MO 65203-0057

National Park Service
Midwest Region
mwro_compliance@nps.gov

USDA Rural Development
601 Business Loop 70 West
235 Parkade Center
Columbia, MO 65203

Gilmore and Bell, P.C.
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One Metropolitan Square
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St. Louis, MO 63102-2741

SRF File C295670-01

The Honorable Frank Miller
Mayor
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Huntsville, MO 65259

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Macon, MO 63552

Missouri Department of Natural Resources
Northeast Regional Office
1709 Prospect Drive
Macon, MO 63552-2602

The Moberly Monitor-Index
218 North Clark Street
Moberly, MO 65270

Environmental Protection Agency
Office of Federal Activities
Ariel Rios (2252A)
1200 Pennsylvania Avenue, N.W.
Washington, DC 20004

Council of Environmental Quality
722 Jackson Place, N.W.
Washington, DC 20503

U.S. Army Corps of Engineers
Kansas City District
Missouri State Regulatory Office
515 East High Street #202
Jefferson City, MO 65101

Mark Twain Regional Council of Governments
42494 Delaware Lane
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Lewis Rice
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St. Louis, MO 63101

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Iowa Tribe of Kansas and Nebraska
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Iowa Tribe of Oklahoma
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cpershall@iowanation.org

Kaw Indian Nation of Oklahoma
c/o Emily Douglas
epadir@kawnation.gov

Miami Tribe of Oklahoma
c/o Logan York, THPO
thpo@miamination.com

Osage Nation
c/o Dr. Andrea A. Hunter
Osage Historic Preservation Office
s106@osagenation-nsn.gov

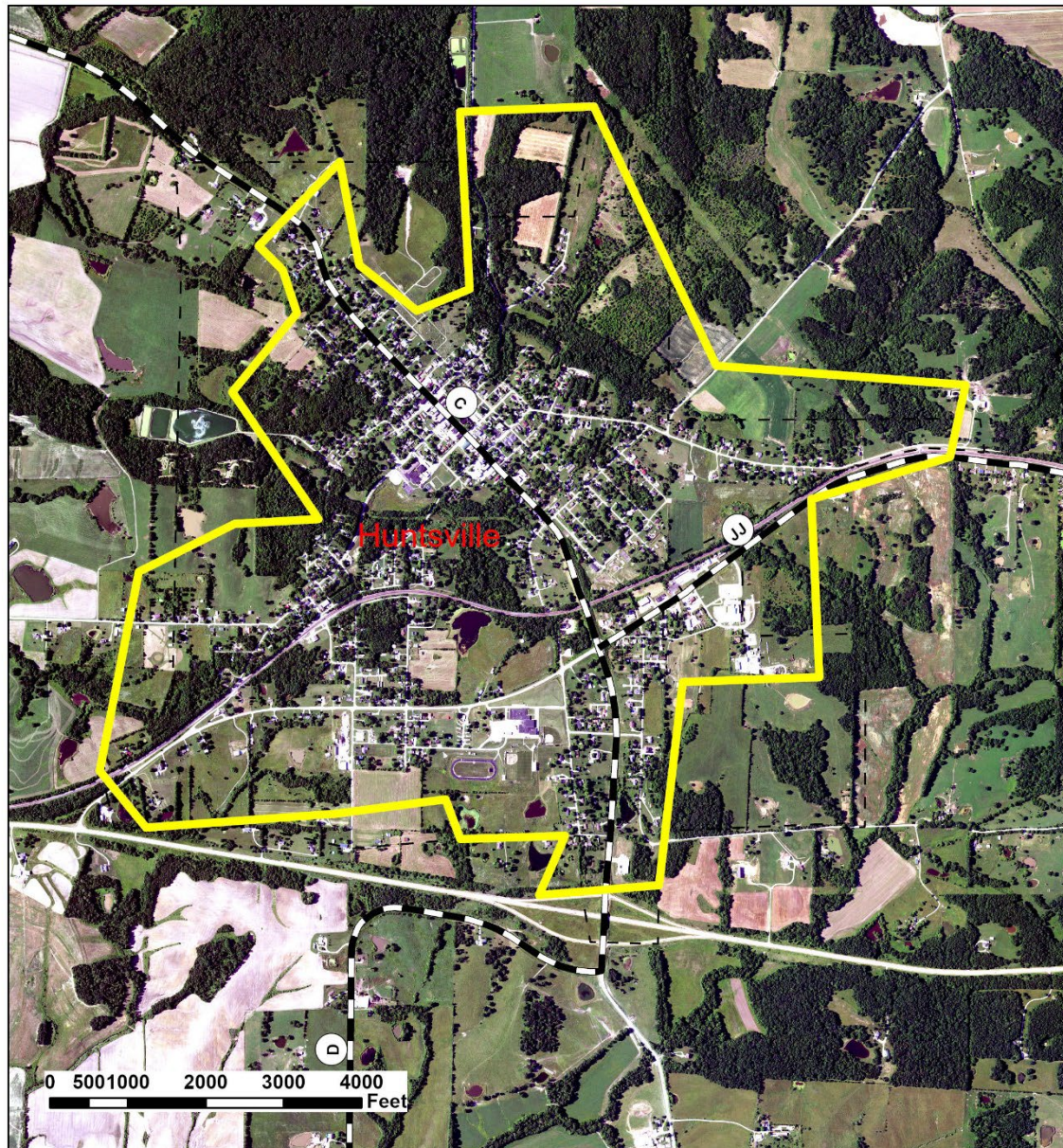
Ponca Tribe of Nebraska
c/o Theresa Foley, THPO
tfoley@poncatrib-ne.org

Ponca Tribe of Oklahoma
c/o Liana Hesler, THPO
106notifications@ponca-nsn.gov

Sac and Fox Tribe of the Missouri in
Kansas and Nebraska
c/o Mark Junker
mark.junker@sacfoxenviro.org and
amy.kahbeah@sacandfoxks.com

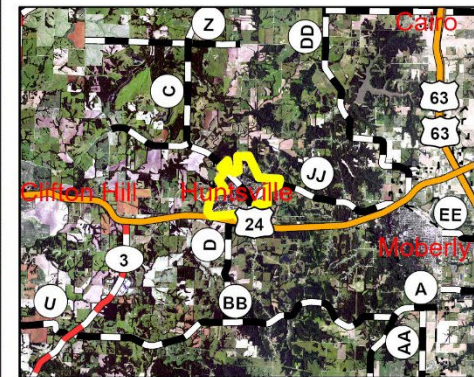
Sac and Fox Tribe of the Mississippi in Iowa
c/o Joan Flecksing
joan.flecksing@meskwaki-nsn.gov

Sac and Fox Nation of Oklahoma
c/o Chris Void
chris.void@sacandfoxnation-nsn.gov



Project Location Map

Huntsville Collection System Improvements



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